

## INTERNATIONALSEARCHREPORT

International application No.  
PCT/JP2005/018215

## A. CLASSIFICATION OF SUBJECT MATTER

IntCl. <sup>7</sup> **H01L51/50** (2006. 01)

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl. <sup>7</sup> **H01L51/50** (2006. 01)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Published examined utility model applications of Japan 1922-1996  
Published unexamined utility model applications of Japan 1971-2005  
Registered utility model specifications of Japan 1996-2005  
Published registered utility model applications of Japan 1994-2005

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 2000-315581 A (Idemitsu Kosan Co., LTD.)	1-5 , 7-8 , 10
Y	2000.11.14, paragraphs 11, 37-42 (No Family)	11, 13-14 , 16, 21, 24
Y	JP 10-270171 A (J.Kido and IMES Co., LTD.)	1-32
	1998.10.09, whole document (No Family)	
Y	JP 11-251067 A (J.Kido and IMES Co., LTD.)	1-32
	1999.09.17, whole document (No Family)	
Y	IMES, Yamagata Univ., Multi Photon Emission Organic EL Devices using Charge-Transfer Complex as Charge Generation Layer, Extended Abstract, The 63 <sup>rd</sup> Autumn Meeting, September 24, 2002, 27a-ZL-12, pp. 1165	1-32

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

\* Special categories of cited documents:

"A" document denning the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

26.10.2005

Date of mailing of the international search report

08.11.2005

Name and mailing address of the ISA/JP

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## INTERNATIONALSEARCHREPORT

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 2004/057686 A2 (Novaled GMBH) 2004.07.08, example 5, paragraph 31 & JP 2005-524966 A	11, 13-14, 16, 21, 24
P, A	JP 2005-166637 A (J.Kido and IMES Co., LTD.) 2005.06.23, Fig4, paragraphs 7, 18 (No Family)	1-32
P, A	JP 2005-251587 A (TDK Co., LTD.) 2005.09.15, claims 1-4 (No Family)	1-32

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**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2. ☒ Claims Nos.: 22  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:  
  
Since the first layer contains a material having a hole transporting property and the fourth layer contains a material having an electron transporting property, it is impossible to select the same material for the both layers. Therefore, skilled person cannot make a light emitting element of claim 22.
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

**Box No. in Observations where unity of invention is lacking (Continuation of item 3 of first sheet)**

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.
3. ☒ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

**Remark on Protest**

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☒ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ NO protest accompanied the payment of additional search fees.